

Claims

What is claimed is:

1. An apparatus for processing a signal in a moveable vehicle having an engine, comprising:

a first fuel governor-selecting operable to receive a throttle signal indicative of a desired throttle of the vehicle and to transmit a first fuel signal indicative of a first desired quantity of fuel to be supplied to the engine as a function of the throttle signal;

a second fuel governor operable to receive the throttle signal and to transmit a second fuel signal indicative of a second desired quantity of fuel to be supplied to the engine as a function of the throttle signal;

a first sensor operable to determine a first characteristic of the vehicle and to transmit a first selecting signal as a function of the first characteristic; and

a governor-selecting selecting device coupled with the sensor to receive the first selecting signal, the governor-selecting selecting device operable to at least one of:

receive the throttle signal and to transmit the throttle signal to one of the first and second governor as a function of the first selecting signal; and

be coupled with the first and second governor to respectively receive the first and second fuel signals, and operable to transmit one of the first and second fuel signals as a function of the first selecting signal.

2. The apparatus of claim 1 wherein the first characteristic of the motor vehicle comprises at least one of whether the vehicle is in motion,

whether a parking brake is set, and whether a transmission of the vehicle is in neutral.

3. The apparatus of claim 1 wherein the first selecting signal is indicative of whether the vehicle is in motion and the governor-selecting device is operable to at least one of:

transmit the throttle signal to the first governor as a function of the vehicle being in motion and to transmit the throttle signal to the second governor as a function of the vehicle not being in motion; and

transmit the first fuel signal as a function of the vehicle being in motion and to transmit the second fuel signal as a function of the vehicle not being in motion.

4. The apparatus of claim 1, further comprising:
a second sensor operable to determine a second characteristic of the vehicle and to transmit a second selecting signal as a function of the second characteristic; and

the governor-selecting device is operable to be coupled with the second sensor to receive the second selection signal, and to at least one of:

transmit the throttle signal to one of the first and second governors as a function of at least one of the first and second selecting signals; and

transmit one of the first and second fuel signals as a function of at least one of the first and second selecting signals

5. The apparatus of claim 4 wherein one of the first selecting signal and the second selecting signal is indicative of whether the transmission is

RECEIVED
JAN 10 1968
FBI - NEW YORK

2

the governor-selecting device is operable to at least one of:
transmit the throttle signal to the first governor as a
function of the vehicle being in motion and transmit the throttle signal to the
second fuel governor as a function of the vehicle not being in motion and the
transmission being in neutral; and

2

6. The apparatus of claim 1 wherein the second fuel governor is further operable to receive a second control signal indicative of a third characteristic of the vehicle, and the second fuel governor is further operable to transmit the second fuel signal as a function of the second control signal.

7. The apparatus of claim 6 wherein the third characteristic of the vehicle comprises an engine speed.

8. The apparatus of claim 1 wherein the first fuel governor is operable to control engine power; and
the second fuel governor is operable to control engine speed.

9. The apparatus of claim 1 wherein the moveable vehicle comprises a truck.

10. The apparatus of claim 1 wherein the first fuel governor
the second fuel governor, and the governor-selecting device comprise circuits.

Al

a first combustion governor operable to receive a first control signal and to transmit a first governor signal operable to control an engine speed of the engine as a function of the first control signal;

a second combustion governor operable to receive the first control signal and to transmit a second governor signal operable to control an engine power production of the engine as a function of the first control signal;

a first sensor operable to determine a first characteristic of the vehicle and to transmit a first selecting signal as a function of the first characteristic; and

a governor-selecting device coupled with the sensor to receive the first selecting signal, the governor-selecting device operable to at least one of:

receive the first control signal and to transmit the first control of the first selecting signal; and

be coupled with at least one of the first and second governors to receive at least one of the first and second governor signals, and operable to transmit one of the first and second governor signals as a function of the first selecting signal.

13. The apparatus of claim 12 wherein the first control signal comprises a throttle signal.

14. The apparatus of claim 12 wherein the first and second governor signals comprise fuel signals indicative of at least one of a desired quantity of fuel, a desired quantity of air, and a desired quantity of an air/fuel mixture for the engine.

15. The apparatus of claim 12 wherein the first characteristic of the motor vehicle comprises at least one of whether the vehicle is in motion, whether a parking brake is set, and whether a transmission of the engine is in neutral.

16. The apparatus of claim 12 wherein the first selecting signal is indicative of whether the vehicle is in motion and the governor-selecting device is operable to at least one of:

vehicle being in motion and to transmit the first control signal to the second governor as a function of the vehicle not being in motion; and

transmit the first governor signal as a function of the vehicle being in motion and to transmit the second governor signal as a function of the vehicle not being in motion.

17. The apparatus of claim 12, further comprising:
a second sensor operable to determine a second characteristic of the vehicle and to transmit a second selecting signal as a function of the second characteristic; and

the governor-selecting device is operable to be coupled with the second sensor to receive the second selection signal, and operable to at least one of:

14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

11

transmit one of the first and second governor signals as a function of at least one of the first and second selecting signals.

the governor-selecting device is operable to at least one of:
transmit the first control signal to the first governor as a
function of the vehicle being in motion and transmit the first control signal to the
second governor as a function of the vehicle not being in motion and the
transmission being in neutral; and

transmit the first governor signal as a function of the vehicle being in motion and to transmit the second governor signal as a function of the vehicle not being in motion and the transmission being in neutral.

19. The apparatus of claim 12 wherein the second combustion governor is further operable to receive a second control signal indicative of a third characteristic of the vehicle, and the second combustion governor is further operable to transmit the second governor signal as a function of the second control signal.

20. The apparatus of claim 19 wherein the third characteristic of the vehicle comprises an engine speed.

~~✓~~

22. The apparatus of claim 12 wherein the first combustion
second combustion governor, and the governor-selecting device
units.

23. The apparatus of claim 22 wherein the circuits comprise at least one of hardware and software.

24. An apparatus for processing a signal in a moveable vehicle
ne, comprising:

Q

a second means for receiving the throttle signal and for fuel signal indicative of a second desired quantity of fuel to define as a function of the throttle signal;

a first sensing means for determine a first characteristic of
transmitting a first selecting signal as a function of the first

a selecting means for receiving the first selecting signal
at one of:

receive the throttle signal and to transmit the throttle signal
second means for receiving the throttle signal as a function
gnal; and

receive the first and second fuel signals, and to transmit
cond fuel signals as a function of the first selecting signal.

25. A method for determining a fuel quantity for an engine of a vehicle, comprising:

determining a desired throttle for the vehicle;

determining a first characteristic of the vehicle;

determining a first fuel quantity to be supplied to the engine as a function of the desired throttle when the first characteristic has a first condition;

determining a second fuel quantity to be supplied to the engine as a function of the desired throttle when the first characteristic has a second condition; and

transmitting a signal indicative of one of the first and second fuel quantities as a function of the first characteristic.

26. The method of claim 25 wherein the first characteristic of the vehicle comprises at least one of whether the vehicle is in motion, whether a parking brake is set, and whether a transmission of the engine is in neutral.

27. The method of claim 25 wherein the first characteristic is indicative of whether the vehicle is in motion; and

transmitting a signal indicative of one of the first and second fuel quantities to the engine as a function of the first characteristic comprises:

transmitting a signal indicative of one of the first and second fuel quantities as a function of when the vehicle is in motion; and

transmitting a signal indicative of the other of the first and second fuel quantities when the vehicle is not in motion.

2025 RELEASE UNDER E.O. 14176

21

28. The method of claim 25, further comprising:
determining a second characteristic of the vehicle; and
wherein transmitting a signal indicative of one of the first
and second fuel quantities as a function of the first characteristic comprises
transmitting a signal indicative of one of the first and second fuel quantities as a
function of the first and second characteristics.

29. The method of claim 28 wherein the first characteristic is
indicative of whether a transmission of the engine is in neutral and the second
characteristic is indicative of whether the vehicle is in motion; and
transmitting a signal indicative of one of the first and
second fuel quantities as a function of the first characteristic comprises
transmitting a signal indicative of the first fuel quantity as a function of the
vehicle being in motion and transmitting the second fuel quantity as a function of
the vehicle not being in motion and the transmission being in neutral.

30. The method of claim 25, further comprising:
determining a third characteristic of the vehicle; and
wherein determining a second fuel quantity to be supplied
to the engine as a function of the desired throttle when the first characteristic has
a second condition comprises determining a second fuel quantity to be supplied
to the engine as a function of the desired throttle and the third characteristic of the
vehicle when the first characteristic has the second condition.

31. The apparatus of claim 30 wherein the third characteristic
of the vehicle comprises an engine speed.

transmitting the other of the first and second fuel quantities
is operable to control an engine speed.

Q1

determining a desired characteristic of the engine, the
desired characteristic operable to control a combustion event of the engine;

determining at least one of:

a second fuel quantity to be supplied to the engine as a function of the desired characteristic of the engine when the vehicle is in the parked mode; and

transmitting a signal indicative of one of the first and second fuel quantities as a function of whether the vehicle is in the parked mode.

35. The method of claim 34 wherein the desired characteristic of the engine comprises one of a desired engine speed and a desired power production.

21

36. The method of claim 34, further comprising:
determining an actual engine speed of the vehicle; and
wherein determining the second fuel quantity comprises
determining the second fuel quantity as a function of the desired characteristic of
the engine and the actual engine speed.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100